

Remark/Arguments

Claims 1-16, 35, 39, 80-95, 114 and 118-120 are rejected under 35 USC 102(b) as being anticipated by Ray et al. (EP 1,128,316). In addition, claims 36-38 and 115-117 are rejected under 35 USC 103(a) as being unpatentable over Ray et al. Claims 1-16, 35, 39, 80-95 and 118-120, as now amended, as well as claims 37-38 and 116-117, are allowable because Ray et al. does not disclose, teach or suggest each and every element of any of these amended claims. Claims 36 and 115 have been cancelled, because the feature originally recited in these claims has been written into amended claims 1 and 80, respectively.

Claim 1 has been amended to recite the further element (d) receiving and executing a manual command to remove a false indication of another face within the image based on a manual indication that the apparatus has automatically falsely identified another group of pixels as being a face. This element is not taught nor suggested by Ray et al. Ray et al. discloses at Figure 3, element 134, and at paragraph [0017], page 5, lines 7-11, that a user may manually locate a face within a viewfinder when the camera fails to detect the face, as indicated by the Examiner. It does not follow, however, that it would be obvious to receive and execute a manual command to remove a false indication of another face based on a manual indication that the apparatus has automatically falsely identified another group of pixels as being a face. In fact, Ray et al. only discloses to permit a user to find a face when the camera fails to find any faces.

Applicants' claim 1, as amended, advantageously allows a user to remove a false indication of a face, such as when a dinner plate, a clock on the wall, a soccer ball, or other object, is falsely identified as a face in a digital image. A user may use this feature even to remove an indication of an actual face, but one that the user does not wish to have the camera adjust any parameters to per element (c), nor to otherwise enhance nor pay special attention to.

Claims 2-5 are allowable as being dependent from amended claim 1. Claim 36 is cancelled, and claims 35 and 37-39 are also allowable as being dependent from amended claim 1. Claims 80-84, 114 and 116-118, as amended, are allowable for the same reasons as claims 1-5, 35 and 37-39, respectively.

Claim 6 requires adjusting values of orientation of a face within a digitally-detected image based upon an analysis of the digital image including the image of the face and default values. This feature is neither taught nor suggested by Ray et al. The indication by the Examiner that the observation by Ray et al. that the majority of faces will be upright or close to upright does not amount to Applicants' advantageous method including adjusting the orientation of the face within the digital image. Ray et al. is simply stating the inference that most camera users like to take pictures with upright faces. This does not meet Applicants' automatic system for detecting a face and adjusting its orientation within a digital image.

Claims 7-16 are allowable as being dependent upon claim 6. Claims 85-95 are allowable for the same reasons as claims 6-16, respectively.

Claim 119 recites to automatically provide a fill flash to digitally add exposure to brighten the group of pixels that correspond to said image of said face while not digitally adding exposure to nor otherwise brightening one or more other pixels within the digital image. This feature is neither taught nor suggested by Ray et al. Applicants' advantageous fill-flash is a digital process wherein pixel values (e.g., of luminance) are adjusted to simulate greater exposure to an actual flash during image capture. The Examiner is respectfully referred to Applicants' Figures 4A, 4C and 4E as illustrative of this advantageous digital processing feature. Claim 120 is allowable for substantially the same reasons as Claim 119, except that in claim 120 an option is provided for performing a fill-flash, whereas in claim 119 the fill-flash is automatically provided.

NEW CLAIMS

New claims 159-160, 164-165 and 169-170 are allowable for the same reasons as claims 119-120. Claims 164-165 and 169-170 are also allowable as being dependent from claims 6 and 85, respectively, which are allowable for the reasons set forth above.

New claims 161-163 and 166-168 are allowable for the same reasons as claim 1, which is allowable for the reasons set forth above. Claims 161-163 and 166-168 are also allowable as being dependent from claims 6, 159, 160, 85, 119 and 120, respectively, which are allowable for the reasons set forth above.

New claims 171-223 are allowable, because Ray et al. does not teach or suggest all of the features of any of these claims.

Claim 171 requires:

A method of processing a digital image using face detection within said image to achieve one or more desired image processing parameters, comprising:

- (a) on an apparatus including a processor configured for image processing, acquiring a main digital image and automatically identifying a group of pixels that correspond to an image of a face within the main digital image;
- (b) generating in-camera, capturing or otherwise obtaining in-camera a collection of low resolution images including said face;
- (c) tracking said face within said collection of low resolution images;
- (d) determining default values of one or more parameters of said face within said main digital image based on analysis of said main digital image or on the collection of low resolution images, or both;
- (e) adjusting values of the one or more parameters within the digital image based upon an analysis of said collection of low resolution images and said digital image including said image of said face and said default values.

Claim 191 is allowable for the same reason as claim 171. Claims 172-190 are allowable as being dependent from claim 171 and claims 192-209 are allowable as being dependent from claim 191.

Claim 210 requires:

A method of processing a digital image using face detection within said image to achieve one or more desired image processing parameters, comprising:

- (a) acquiring a temporally-sequential collection of two or more images of substantially a same scene;
- (b) identifying and tracking at least one group of pixels that corresponds to an image of a same face region across said collection of images;
- (c) determining default values of one or more parameters of at least some common portion of said images; and
- (d) modifying values of the one or more parameters within a main acquired image based upon an analysis of said face region and the default parameter values determined based on the collection of images, and
- (e) rendering, transmitting, transferring, storing, uploading, caching, or displaying said modified image or a further processed version, or combinations thereof.

Claim 218 is allowable for the same reasons as claim 210. Claims 211-217 are allowable as being dependent from claim 210 and claims 219 to 223 are allowable as being dependent from claim 218.

For the reasons set forth above, it is respectfully submitted that the application is now in condition for allowance.

Appl. No.: 10/608,810
Docket No.: FN-102A-US
Reply to Office Action mailed February 22, 2008

The Commissioner is authorized to charge any deficiencies in fees and credit any overpayment of fees to **Deposit Account No. 50-4399**. A duplicate page is attached.

Respectfully submitted,

Dated: May 20, 2008

By /Andrew Vernon Smith/
Andrew V. Smith
Reg. No. 43,132

FOTONATION
3099 Orchard Drive
San Jose, CA 95134
Telephone: 415-203-2782
Facsimile: 408-894-0190

Customer No.: 72104

Appl. No.: 10/608,810
Docket No.: FN-102A-US
Reply to Office Action mailed February 22, 2008

The Commissioner is authorized to charge any deficiencies in fees and credit any overpayment of fees to **Deposit Account No. 50-4399**. A duplicate page is attached.

Respectfully submitted,

Dated: May 20, 2008

By /Andrew Vernon Smith/
Andrew V. Smith
Reg. No. 43,132

FOTONATION
3099 Orchard Drive
San Jose, CA 95134
Telephone: 415-203-2782
Facsimile: 408-894-0190

Customer No.: 72104